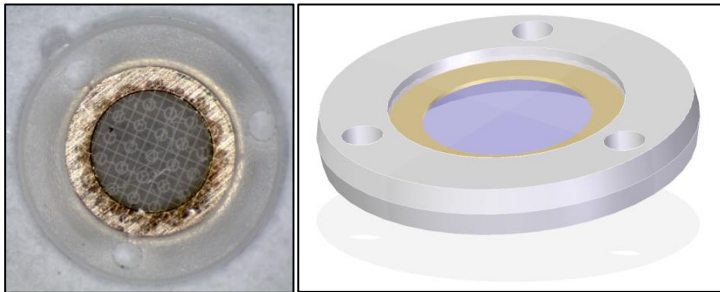
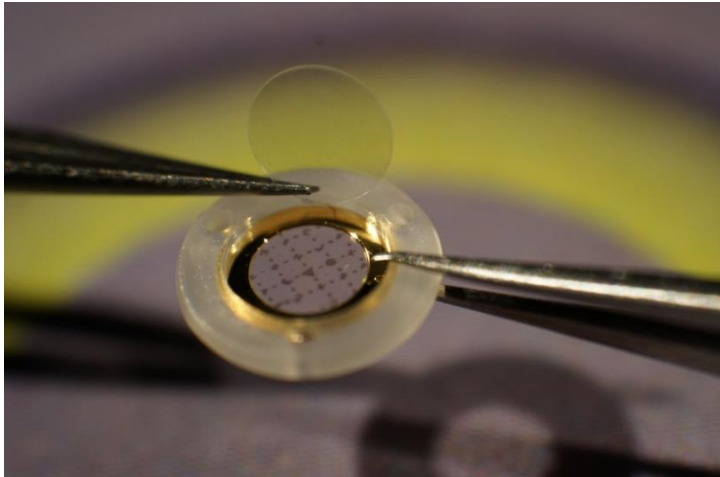


Bringing Correlative light and electron microscopy forward with the CryoCapsule®

High pressure freezing is the most advanced technology when it comes to vitrify a hydrated biological specimen while preserving the ultrastructure. Developed in the 80's [1], the technology evolved progressively to become accessible to a larger community. Still, the sample preparation prior to HPF remains tedious and often comes to advance expertise depending on the specimen [2]



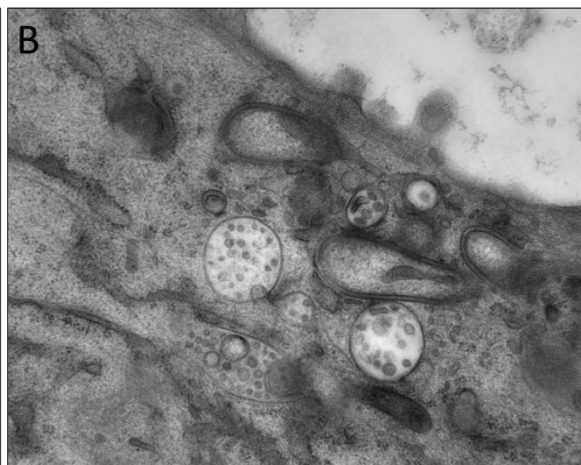
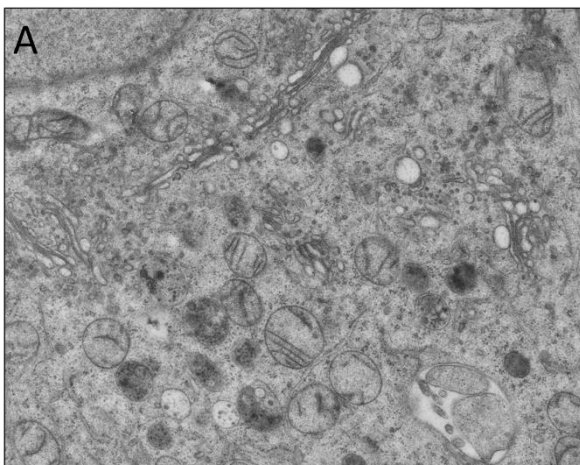
The CryoCapsule® is a new tool in the field of High Pressure Freezing (HPF) and correlative light and electron microscopy (CLEM). Comparable to a small petri dish, it is composed of a landmarked sapphire disc and a gold spacer ring (50um thick) maintained together by a plastic ring [3].

The specimens are encapsulated between the support sapphire disc (carbon landmarked) and a covering sapphire disc.

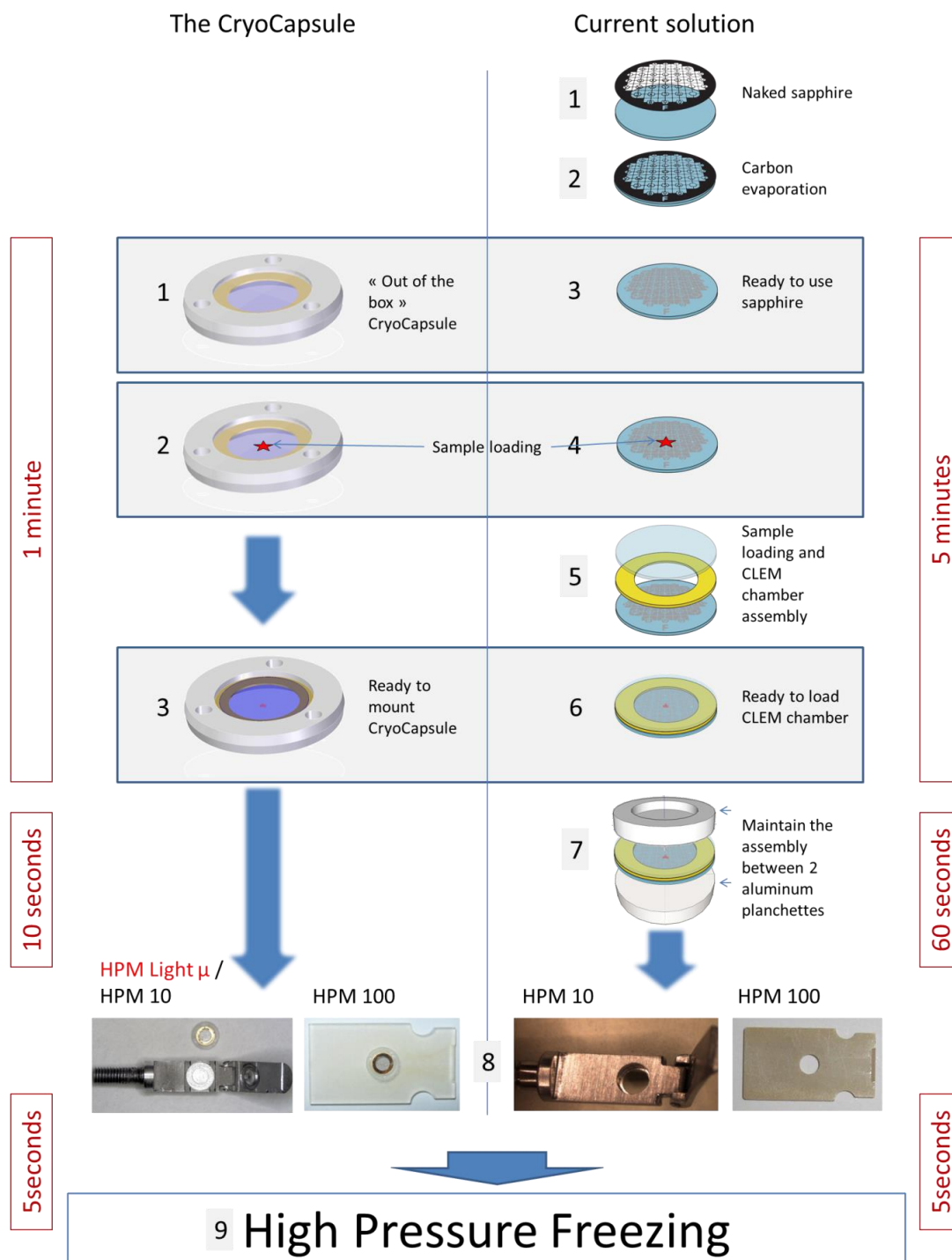
The CryoCapsule® is loaded into a specific adaptor (HPM Live μ , HPM α , HPM010, HPM100, HPF compact 02). Live cell imaging is done directly on the specimen in the CryoCapsule prior to HPF.

Post-HPF, the specimen is processed for freeze substitution [4] and room temperature sectioning.

CryoCapCell has developed a set of tools to manipulate the CryoCapsule® [4] in all biological environments. For technical details or support, please write to contact@cryocapcell.com



The CryoCapsule VS sapphire discs



Heiligenstein X, Heiligenstein J, Delevoye C, Hurbain I, Bardin S, Paul-Gilloteaux P, Sengmanivong L, Régnier G, Salamero J, Antony C, Raposo G. The CryoCapsule: Simplifying Correlative Light to Electron Microscopy. Traffic [Internet] 2014 [cited 2014 May 14];15:700–16. Available from: <http://doi.wiley.com/10.1111/tra.12164>

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